

INCREASING DURATION OF INFORMATION IN  
A PACKET TO REDUCE PROCESSING REQUIREMENTS

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5    ABSTRACT

          A device forms packets for a stream of information being transmitted over a packet switched network (such as the Internet) in the normal manner. The device responds to a predetermined event by deliberately forming packets to provide a different quality of service, as compared to the service quality provided by packets that were formed prior to the event. The predetermined event can be related to deterioration or improvement in network performance, and the device can respond by correspondingly decreasing or increasing the service quality of the packets being formed. Specifically, the predetermined event can indicate an increase in processing requirements beyond a threshold, and the device reduces service quality by including a larger amount of information (also called "payload") in each packet formed after the event, as compared to the amount of information included prior to the event. The predetermined event can be triggered by a change in processing requirements in the device that forms the packets (also called "source device"). Alternatively, when a processing requirement change occurs in another device that is coupled to the source device, the other device can inform the source device. If the other device generates and transmits another stream (also called "return stream") back to the source device, the other device can notify the source device implicitly, by simply using a changed payload size in packets that form the return stream.

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09314593-051999